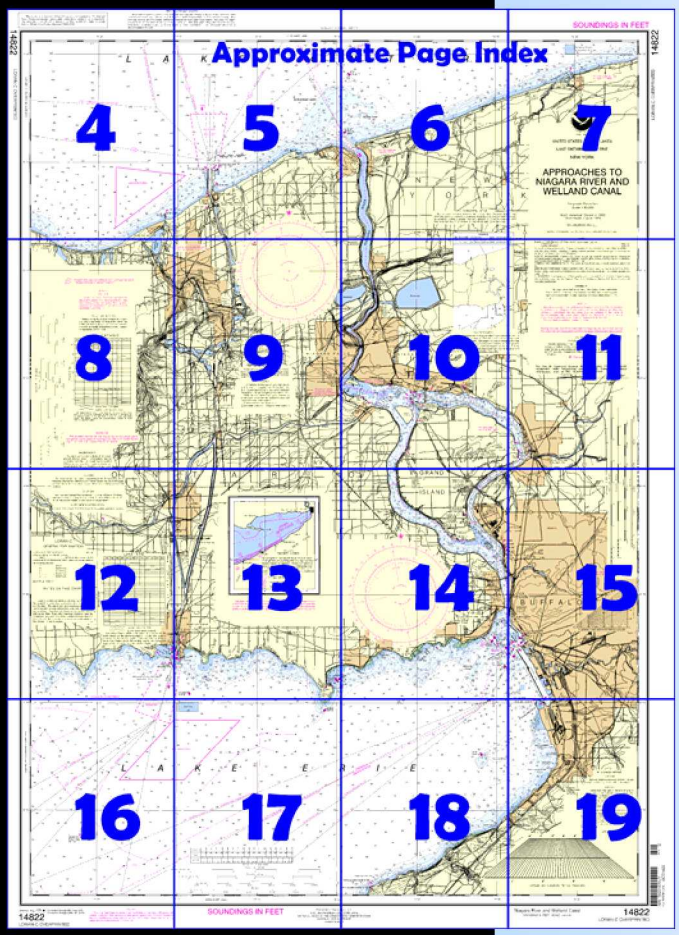
BookletChart™

Approaches to Niagara River and Welland Canal

(NOAA Chart 14822)



A reduced scale NOAA nautical chart for small boaters. When possible, use the full size NOAA chart for navigation.

- ☑ *Complete, reduced scale nautical chart*
- ☑ *Print at home for free*
- ☑ *Convenient size*
- ☑ *Up to date with all Notices to Mariners*
- ☑ *United States Coast Pilot excerpts*
- ☑ *Compiled by NOAA, the nation's chartmaker.*

NOAA
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

Home Edition (not for sale)

Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
301-713-2770

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

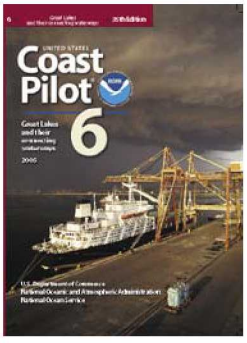
This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.



[Coast Pilot 6, Chapter 6 excerpts]

(39) At its E end, Lake Erie becomes comparatively narrow and has its outlet in the Niagara River. From the head of the river, it is about 20 miles to the falls and rapids of **American Falls** and **Horseshoe Falls.** About 5 miles below the head, the river is divided into two channels by **Strawberry Island** and **Grand Island. Tonawanda Channel** and **Niagara River Channel,** the U.S. channels, lead to the E of these islands, and **Chippawa Channel,** the Canadian channel, leads to the W of these islands. At the lower end of Grand Island, the channels rejoin and lead for about 3.5 miles to the falls.

(40) The **International boundary** between the United States and Canada follows a general middle of the river course in the upper Niagara River from the head of the river downstream to the head of Grand Island where the river forks around the island. The boundary then follows Chippawa Channel and is generally less than 1,000 feet off the W shore of Grand Island until Chippawa Channel and Niagara River Channel join at the NW end of Grand Island. The boundary again follows a general middle of the river course around the S side of **Goat Island** and over Niagara Falls.

(47) Black Rock Canal is the recommended route from Lake Erie to facilities in the Niagara River below **Squaw Island.** The channel formerly dredged in the open river W of Bird Island and Squaw Island has shoaled to depths of 10 feet or less. The bottom in this reach is generally rocky, and the currents are strong and variable. Great care should be exercised in navigating this section of the river.

(49) **Black Rock Canal** provides a safe passage for vessels around the rapids and shoals in the head of the Niagara River.

(50) The Lake Erie entrance to Black Rock Canal is through Buffalo Harbor North Entrance Channel and across the Outer Harbor Northern Channel to Black Rock Canal Entrance Channel. From its entrance, the canal leads northward along the Buffalo front, parallel with the river and separated from it by **Bird Island Pier** and Squaw Island. Bird Island Pier and Squaw Island retain the canal pool from the W, and, along with Black Rock Lock, serve to keep the canal level at the same elevation as the water surface of Lake Erie.

(51) From Black Rock Lock at the lower end of Squaw Island, the dredged channel extends to a point about 0.7 mile below **Pirates Island,** off the SE side of Grand Island, thence through the natural deep water of Tonawanda Channel. W of **Tonawanda Island,** the dredged channel continues to a turning basin on the N side of Tonawanda Island at North Tonawanda.

(56) **Black Rock Lock** connects the canal with the river near the foot of Squaw Island. The lock has a usable length of 625 feet with a clear width of 68 feet and a depth of 21 feet over the sills. The lock has an average lift of 5.2 feet.

(66) **Bird Island** is on the W side of the Black Rock Canal about 1.3 miles below the entrance. Piers that enclose the canal extend S from Bird Island and N to connect with Squaw Island. A **special anchorage** is on the N and S sides of Bird Island.

(67) The canal generally has a slight current downstream. During rapidly rising or high water in Lake Erie, there is a strong crosscurrent at the S end of Bird Island Pier.

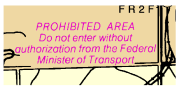
(68) Three bridges cross Black Rock Canal. Peace Bridge, 2 miles below the S entrance, has a fixed span with a clearance of 100 feet. An overhead power cable 0.2 mile below the bridge has a clearance of 144 feet. Ferry Street Bridge, 2.6 miles below the entrance, has a bascule span with a clearance of 17 feet for 86 feet from the E abutment, thence decreasing to 12 feet at the W abutment. The bridgetender monitors VHF-FM channel 16 and works on channel 12. International Bridge, with a combined rail and highway swing span 3.8 miles below the entrance, has a clearance of 17 feet.

(69) A **speed limit** of 6 mph is enforced in Black Rock Canal.

(70) The canal has no docks or facilities for mooring large vessels. The Buffalo Yacht Club maintains a small-craft basin on the canal adjacent to the Buffalo waterworks pumping station. Downstream from the yacht club basin, a berthing area about 12 feet deep has been dredged for the U.S. Naval and Marine Corps Reserve Training Center. Several small-craft facilities are on **Scajaquada Creek,** which enters the canal about 0.5 mile SE of the lock. Transient berths, gasoline, water, electricity, marine supplies, a launching ramp, a 4-ton mobile crane, and hull and gasoline engine repairs are available. In 1977, 4 feet was reported available in the approach and alongside the berths.

(71)**Peace Bridge** crosses the open Niagara River about 1.5 miles from the head. The bridge has several fixed spans with center clearances of 56 to 91 feet. The normal vessel route is under the fourth span from the U.S. mainland (the first being the bowstring truss over the Black Rock Canal). This span has a clearance of 67 feet at the center. An intake crib marked by a light is just downstream of the third span from the U.S. mainland. Navigation through this span is difficult in the turbulent current.

Table of Selected Chart Notes



Ⓟ Pump-out facilities

Corrected through NM Aug. 6/05
Corrected through LNM Jul. 26/05

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Buffalo, NY	KEB-98	162.55 MHz

RACING BUOYS

Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

NOTE C
CAUTION

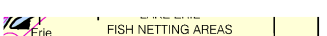
Cables for an Ice Boom are permanently attached to anchors on the lake bottom. They are submerged and not buried. Floating steel pontoons are attached to these cables between December 15 and April 1.

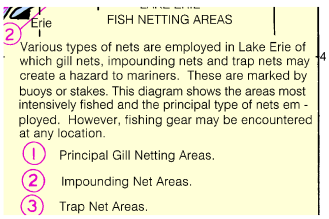
CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
⊙(Accurate location) o(Approximate location)

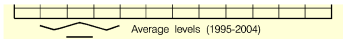




FISH NETTING AREAS

Various types of nets are employed in Lake Erie of which gill nets, impounding nets and trap nets may create a hazard to mariners. These are marked by buoys or stakes. This diagram shows the areas most intensively fished and the principal type of nets em - ployed. However, fishing gear may be encountered at any location.

1. Principal Gill Netting Areas.
2. Impounding Net Areas.
3. Trap Net Areas.



Average levels (1995-2004)
Extreme Levels (period of record)

Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the charted depths. If the lake level is above or below Low Water Datum, the existing depths are correspondingly greater or lesser than the charted depths.

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SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 6 for important supplemental information.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot 6 for details.

CAUTION

Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

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CAUTION
POTABLE WATER INTAKE

Vessels operating in fresh water lakes or rivers shall not discharge sewage, or ballast, or bilge water within such areas adjacent to domestic water intakes as are designated by the Commissioner of Food and Drugs (21 CFR 1250.93). Consult U.S. Coast Pilot 6 for important supplemental information.

SOURCE DIAGRAM

Most of the hydrography identified by the letter "j" was surveyed by the U.S. Army Corps of Engineers prior to 1974. Other outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum 1983 (NAD 83) and is considered equivalent to World Geodetic System 1984 (WGS 84) for practical plotting purposes. Positions referred to the North American 1927 Datum do not require conversion to NAD 83 for plotting on this chart.

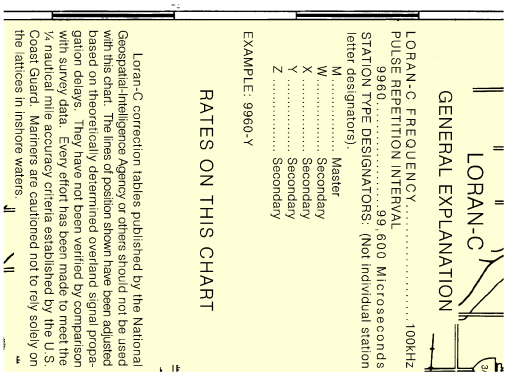
Sailing courses and limits indicated in magenta are recommended by the Lake Carriers Association and the Canadian Shipowners Association

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notices to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Buffalo, N.Y.

Refer to charted regulation section numbers.

Gas pipelines and wells contain natural gas under pressure and damage to these installations would create an immediate fire hazard. Vessels anchoring in Lake Erie should do so with caution after noting the underwater, and therefore concealed, positions of all oil and gas wells, pipelines, submarine cables and other installations.



CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

For the St. Lawrence Seaway Regulations and Circulars, special equipment, radio frequencies used in Traffic Control and related information, refer to THE SEAWAY HANDBOOK.

AUTHORITIES. Hydrography and Topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard, and Canadian authorities.

BRIDGE AND OVERHEAD CABLE CLEARANCES. When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.

SAILING DIRECTIONS. Bearings of sailing courses are true and distances given thereon are in statute miles between points of departure.

PLANE OF REFERENCE OF THIS CHART (Low Water Datum)
LAKE ERIE.....569.2 ft.
LAKE ONTARIO.....243.3 ft.
Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985).

SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see Chart No. 1

14822

LORAN-C OVERPRINTED

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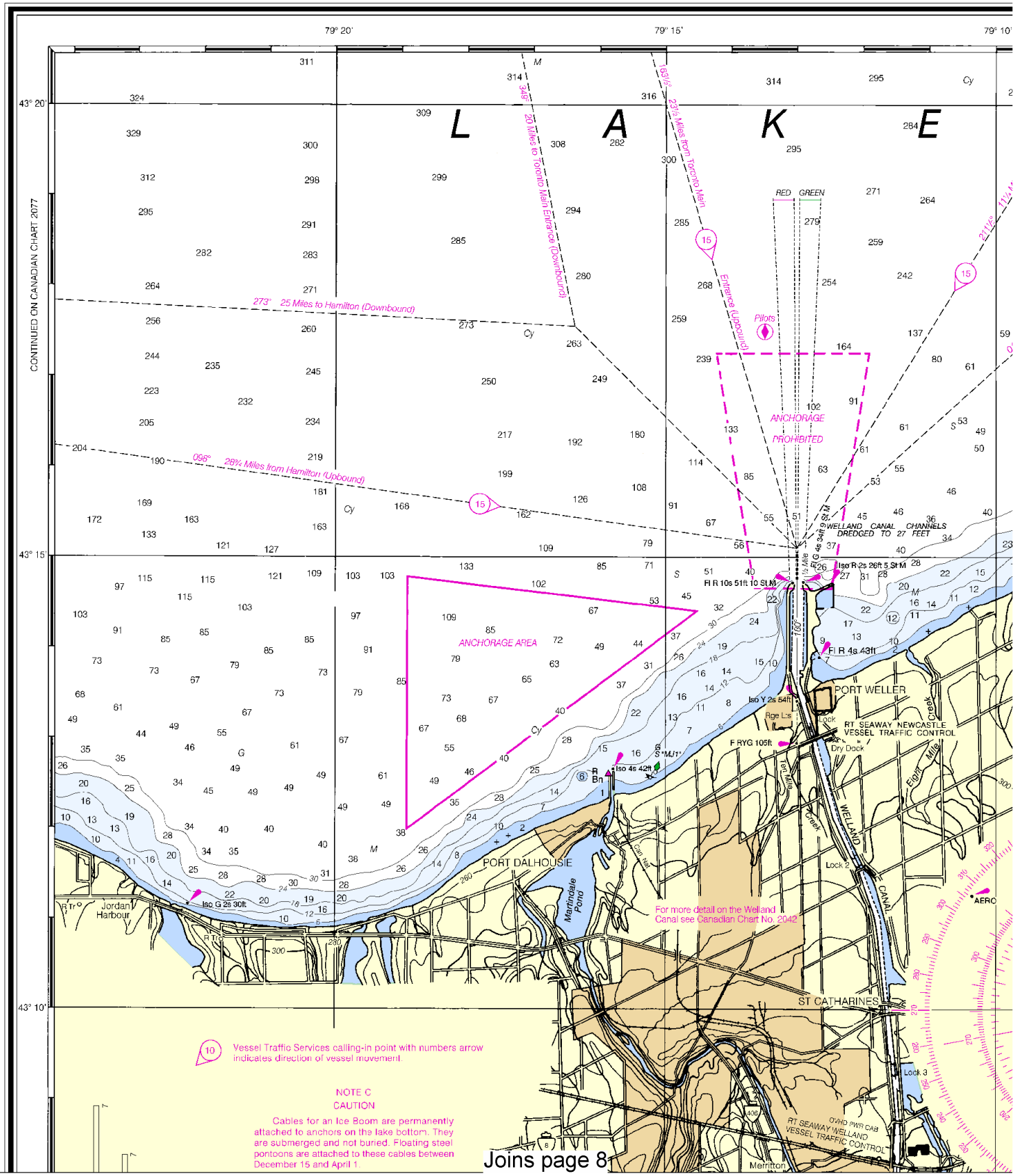
PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, http://NauticalCharts.gov, help@NauticalCharts.gov, or OceanGrafix at 1-877-36CHART, http://OceanGrafix.com, or help@OceanGrafix.com.

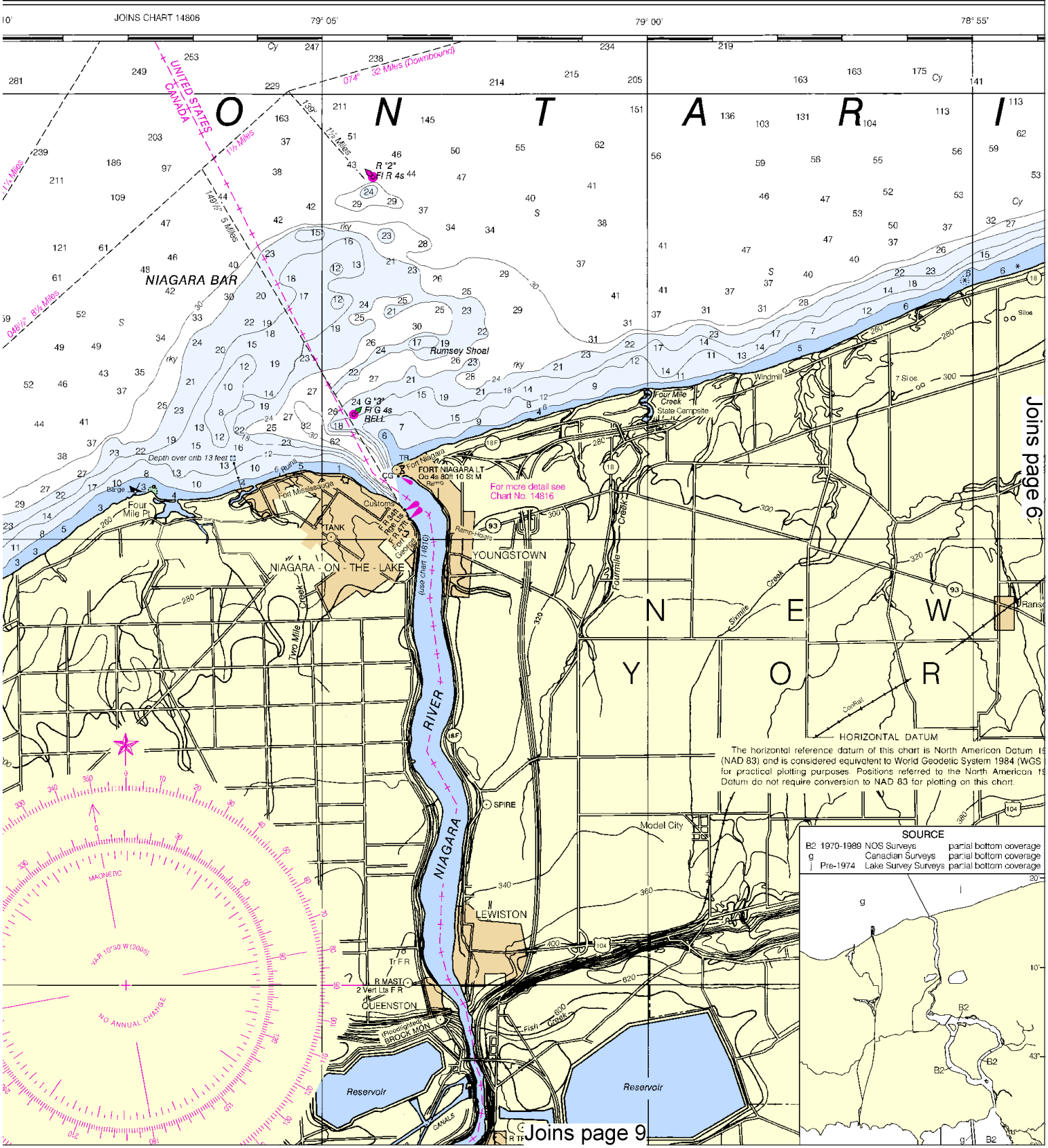


Printed at reduced scale. ~~SCALE 1:80,000~~ See Note on page 5.

Nautical Miles: 1 0 1 2 3 4 5 6 7

Yards: 1000 0 2000 4000 6000 8000 10000

North



This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:106667. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.

INT-ON-DEMAND CHARTS
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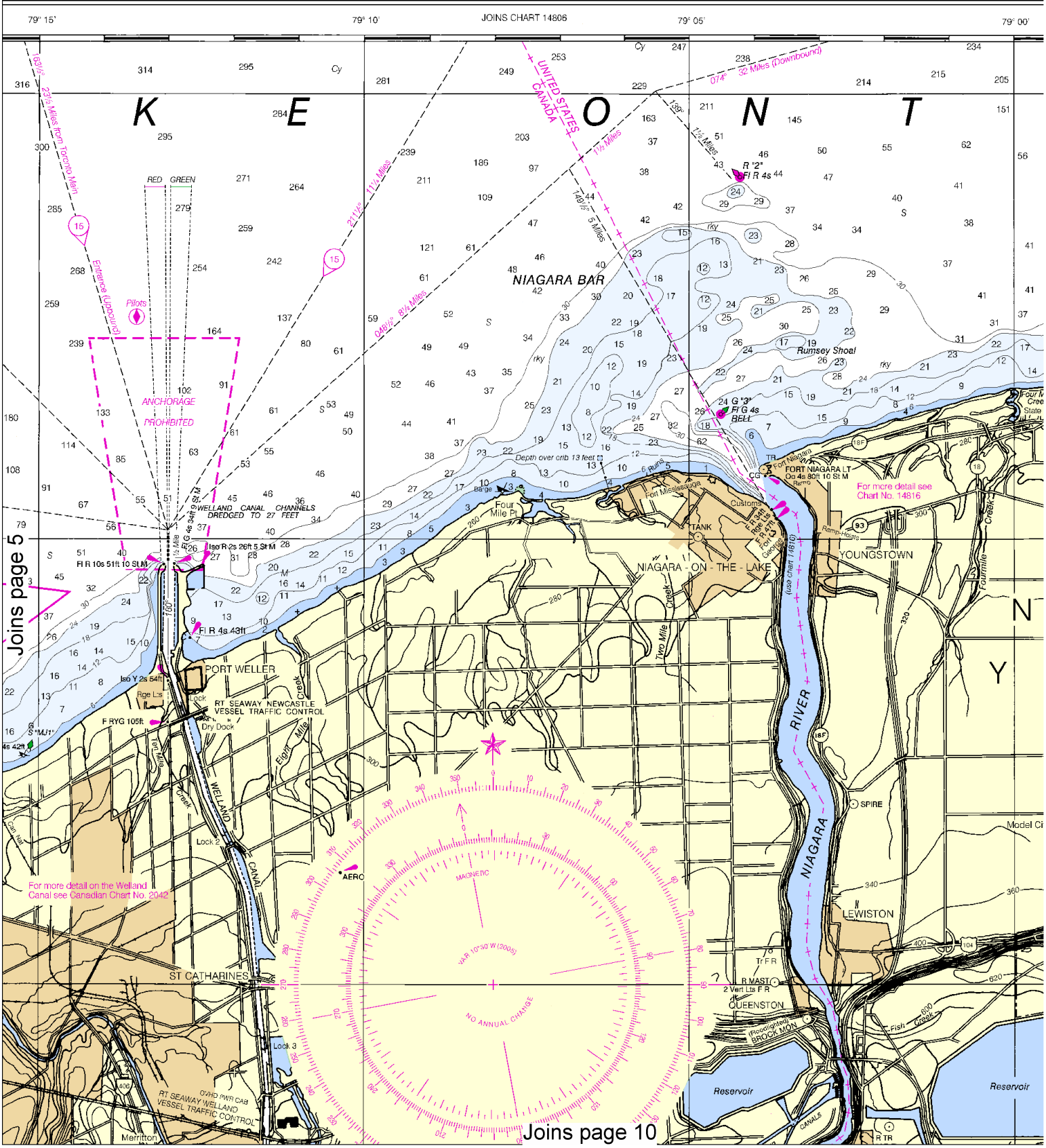
inted when ordered using Print-on-Demand technology. New
their release as traditional NOAA charts. Ask your chart agent
ntact NOAA at 1-800-584-4683, http://NauticalCharts.gov,
anGrafix at 1-877-56CHART, http://OceanGrafix.com, or

Formerly LS-31, 1st Ed., 1880 KAPP 1135

79° 15' 79° 10' JOINS CHART 14806 79° 05' 79° 00'



Printed at reduced scale. ~~SCALE 1:80,000~~ See Note on page 5.

Nautical Miles
1 0 1 2 3 4 5 6 7

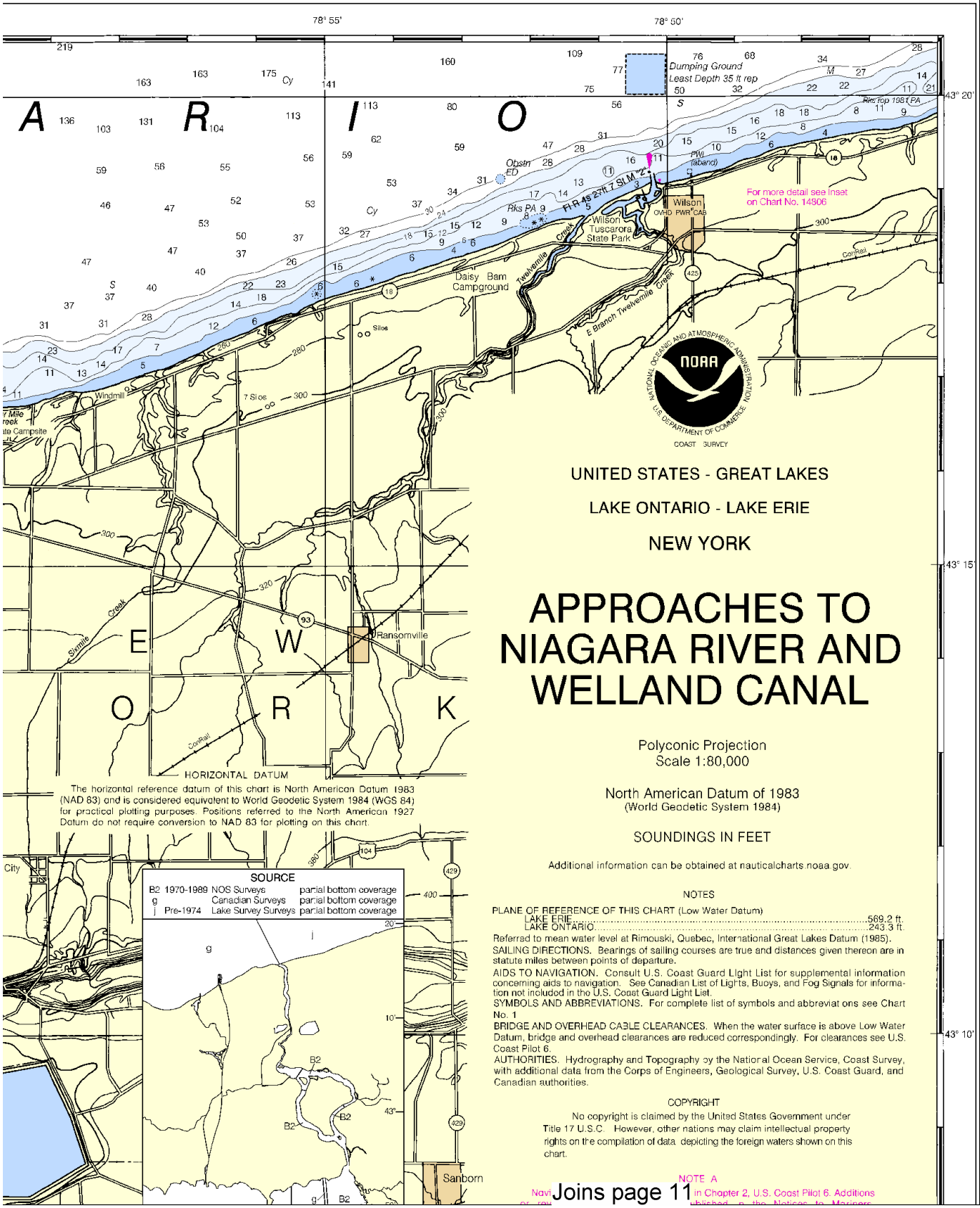
Yards
1000 0 2000 4000 6000 8000 10000

North

SOUNDINGS IN FEET

14822

LORAN-C OVERPRINTED



NOAA

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE
COAST SURVEY

UNITED STATES - GREAT LAKES

LAKE ONTARIO - LAKE ERIE

NEW YORK

APPROACHES TO NIAGARA RIVER AND WELLAND CANAL

Polyconic Projection
Scale 1:80,000

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET

Additional information can be obtained at nauticalcharts.noaa.gov.

NOTES

PLANE OF REFERENCE OF THIS CHART (Low Water Datum)
LAKE ERIE.....569.2 ft.
LAKE ONTARIO.....243.3 ft.

Referrad to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985).

SAILING DIRECTIONS. Bearings of sailing courses are true and distances given thereon are in statute miles between points of departure.

AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation. See Canadian List of Lights, Buoys, and Fog Signals for information not included in the U.S. Coast Guard Light List.

SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviat ons see Chart No. 1

BRIDGE AND OVERHEAD CABLE CLEARANCES. When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.

AUTHORITIES. Hydrography and Topography oy the Natio al Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard, and Canadian authorities.

NOTE A

Navi in Chapter 2, U.S. Coast Pilot 6. Additions or rev published in the Notices to Mariners

Joins page 11

This BookletChart has been updated with: Coast Guard Local Notice To Mariners: 0710 2/16/2010,
NGA Weekly Notice to Mariners: 0910 2/27/2010,
Canadian Coast Guard Notice to Mariners: 0110 1/29/2010.

Joins page 4

PORT DALHOUSIE

Marindale Pond

Iso G 2s 30ft

Jordan Harbour

For more detail on the Welland Canal see Canadian Chart No. 2042

ST CATHARINES

43° 10'

Vessel Traffic Services calling-in point with numbers arrow indicates direction of vessel movement.

NOTE C

CAUTION

Cables for an Ice Boom are permanently attached to anchors on the lake bottom. They are submerged and not buried. Floating steel pontoons are attached to these cables between December 15 and April 1.

POLLUTION REPORTS

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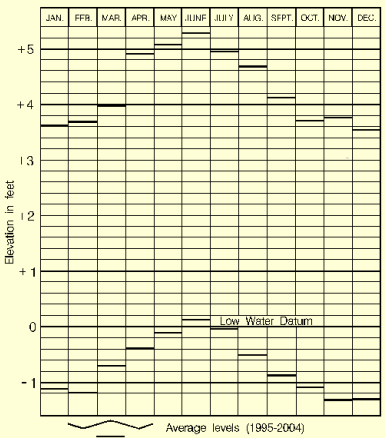
LAKE ONTARIO



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SCALE 1:80,000

Nautical Miles 1 0 1 2 3 4 5 6 7

Statute Miles 1 0 1 2 3 4 5 6 7

Yards 1000 0 2000 4000 6000 8000 10000

Meters 1000 0 1000 2000 4000 6000 8000 10000

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot 6 for details.

RACING BUOYS

Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

CAUTION

Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

CAUTION

Mariners are warned that numerous uncharted stakes and fishing structures, some submerged, may exist in the area of this chart. Such structures are not charted unless known to be permanent.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 6 for important supplemental information.

43° 05'

43° 00'

RT SEAWAY WELLAND VESSEL TRAFFIC CONTROL

OVHD PWR CAB

Merritton

Thorold

Twin Locks 6 & 7

Lock 3

Lock 7

Dam

Decew Falls Power Plant

Tunnel

Guard Gate

Beaver Dams Creek

OVHD PWR CABS

Thorold South RMAST 4 Vert Lts Oc R 3 F R

TANK

RADAR

Radar reflectors

floating aids to nav

reflector identificati

omitted from this ch

Limitations on t

aids to marine navi-

U.S. Coast Guard

Geospatial-Intelligen

Radio direction-fi

broadcasting statio

should be used wit

Station positions

(Accurate location

Allanburg

OVHD PWR CABS

OVHD PWR CAB

Allanburg Jct

Fonthill

Port Robinson

Pelham Corners

ONTARIO

Canadian National

OVHD PWR CAB

Tunnel

T H & B Ry

WELLAND

OVHD PWR CABS

Port Dover

Joins page 12

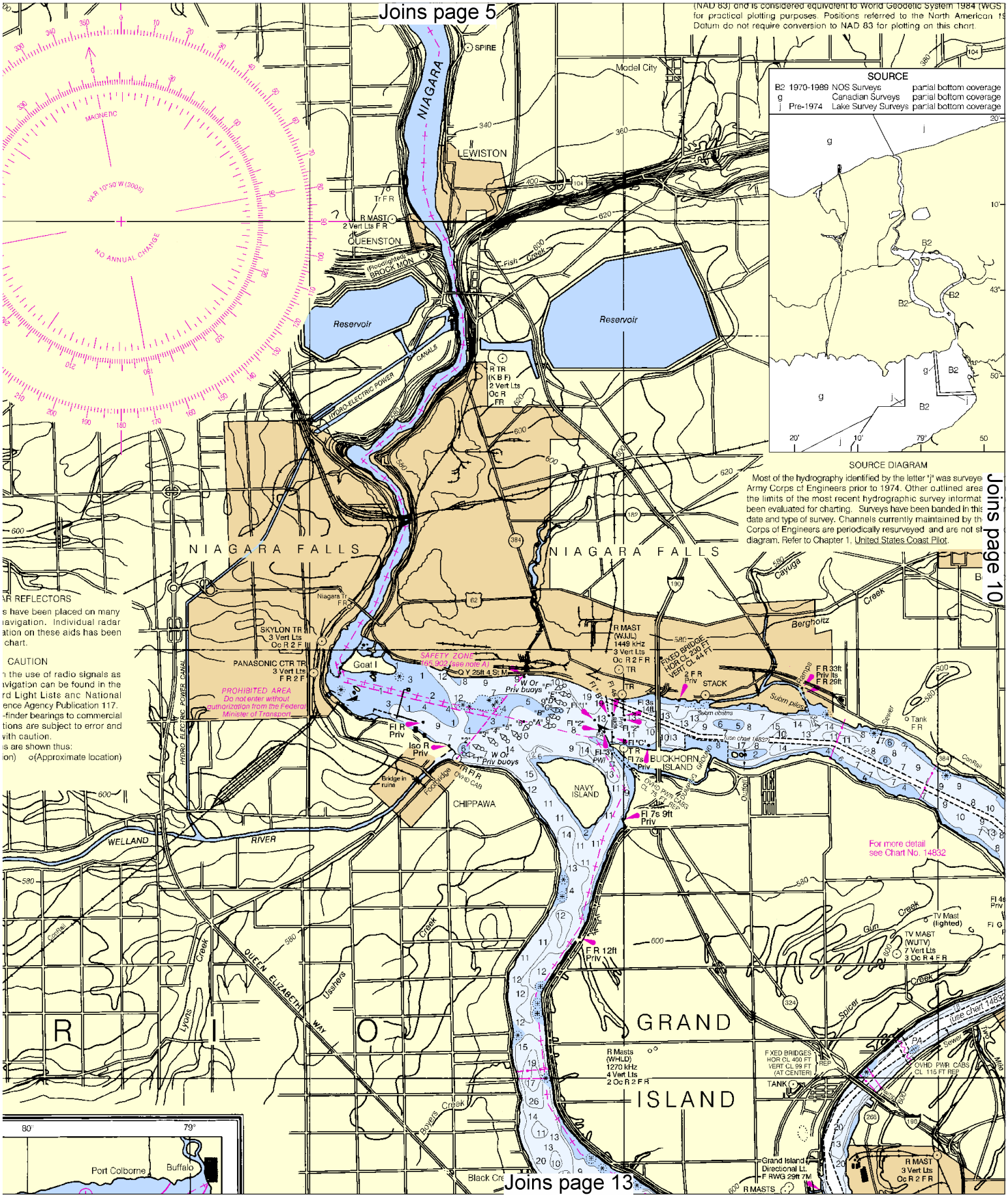
North

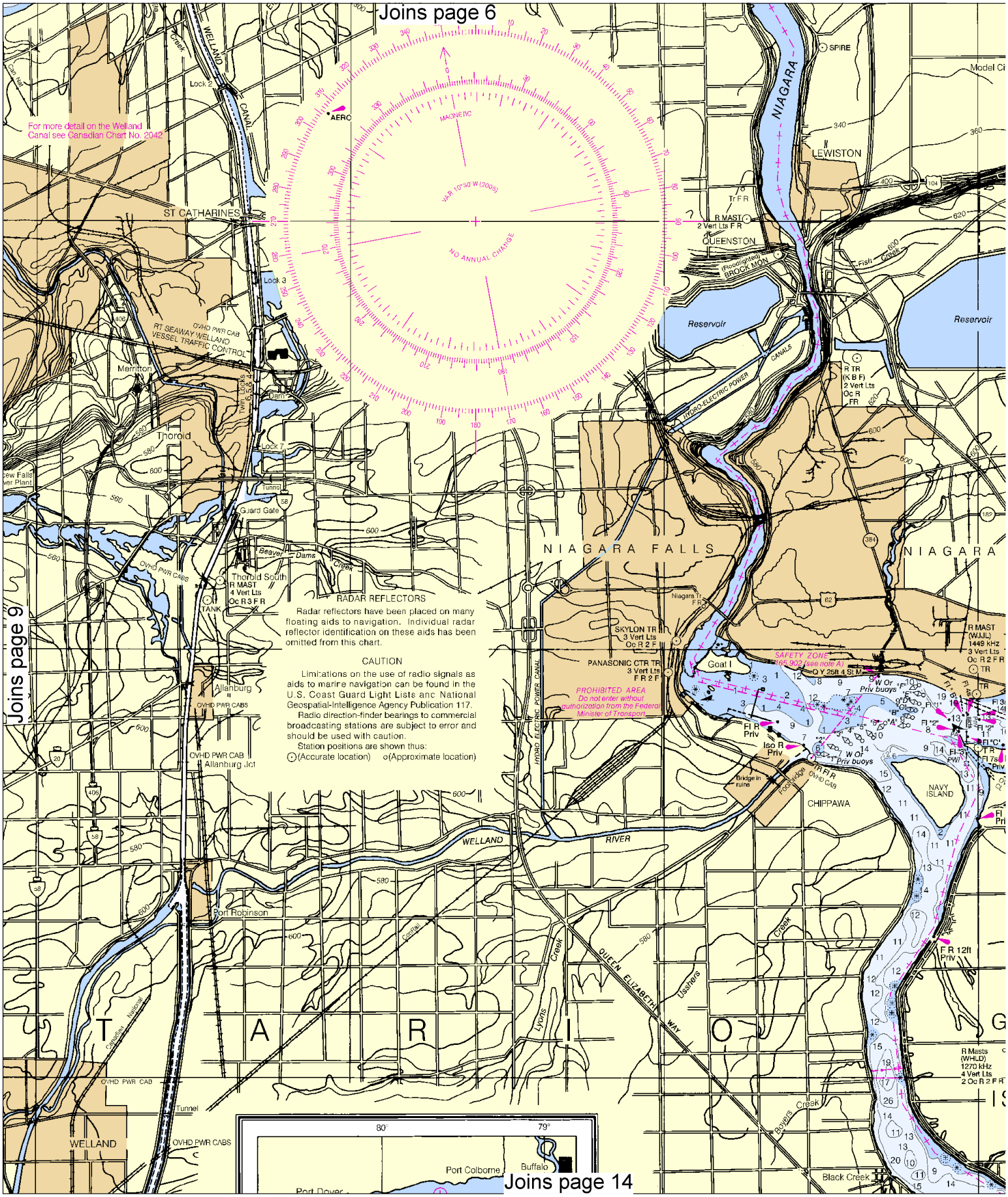
Printed at reduced scale. ~~SCALE 1:80,000~~

Nautical Miles 1 0 1 2 3 4 5 6 7

Yards 1000 0 2000 4000 6000 8000 10000

See Note on page 5.


Joins page 5
(NAD 83) and is considered equivalent to World Geodetic System 1984 (WGS
for practical plotting purposes. Positions referred to the North American 1
Datum do not require conversion to NAD 83 for plotting on this chart.
SOURCE
B2 1970-1989 NOS Surveys partial bottom coverage
g Canadian Surveys partial bottom coverage
j Pre-1974 Lake Survey Surveys partial bottom coverage
SOURCE DIAGRAM
Most of the hydrography identified by the letter "j" was surveye
Army Corps of Engineers prior to 1974. Other outlined area
the limits of the most recent hydrographic survey informat
been evaluated for charting. Surveys have been banded in thi
date and type of survey. Channels currently maintained by th
Corps of Engineers are periodically resurveyed and are not st
diagram. Refer to Chapter 1, United States Coast Pilot.
Joins page 10
MAGNETIC
VAR 10°30 W (2008)
NO ANNUAL CHANGE
NIAGARA
SPIRE
Model City
N LEWISTON
Tr F R
R MAST
2 Vert Lts F R
QUEENSTON
(Floodlighted)
BROCK MON
Fish Creek
Reservoir
Reservoir
CANALS
HYDRO-ELECTRIC POWER
R TR
(K B F)
2 Vert Lts
Oc R
F R
NIAGARA FALLS
NIAGARA FALLS
Niagara Tr
F R
SKYLON TR
3 Vert Lts
Oc R 2 F R
PANASONIC CTR TR
3 Vert Lts
F R 2 F
Goat I
SAFETY ZONE
(165.902 (see note A)
Q Y 25ft 4 St M
PROHIBITED AREA
Do not enter without
authorization from the Federal
Minister of Transport
W Or
Priv buoys
R MAST
(WJJL)
1449 kHz
3 Vert Lts
Oc R 2 F R
TR
FIXED BRIDGE
HOR CL 200 FT
VERT CL 44 FT
2 F R
Priv
STACK
F R 33ft
Priv lts
F R 29ft
Cayuga
Creek
Bergholtz
Creek
Submarines
Submarines
Submarines
Sewer
Tank
F R
Fl R
Priv
Iso R
Priv
W Or
Priv buoys
Fl 3s
14ft
Fl 7s
Priv
BUCKHORN
ISLAND
Dock
Bridge in
ruins
Footbridge
OVHD CAB
TR F R
CHIPPAWA
NAVY
ISLAND
Fl 7s 9ft
Priv
OVHD PWR CABS
CL 75 FT REP
Submarines
Submarines
Conrail
WELLAND
RIVER
For more detail
see Chart No. 14832
Creek
Gun
Creek
TV Mast
(lighted)
TV MAST
(WUTV)
7 Vert Lts
3 Oc R 4 F R
Creek
Spicer
Creek
QUEEN ELIZABETH WAY
Lyons
Creek
Ushers
Creek
R
I
O
GRAND
ISLAND
F R 12ft
Priv
R Masts
(WHLD)
1270 kHz
4 Vert Lts
2 Oc R 2 F R
FIXED BRIDGES
HOR CL 400 FT
VERT CL 99 FT
(AT CENTER)
REP
TANK
OVHD PWR CABS
CL 115 FT REP
Sewer
Pipeline
Pipeline
Grand Island
Directional Lt.
F RWG 29ft 7M
R MASTS
R MAST
3 Vert Lts
Oc R 2 F R
Bowers Creek
Black Cre
Joins page 13
AR REFLECTORS
s have been placed on many
navigation. Individual radar
ation on these aids has been
chart.
CAUTION
n the use of radio signals as
avigation can be found in the
rd Light Lists and National
ence Agency Publication 117.
-finder bearings to commercial
tions are subject to error and
vith caution.
s are shown thus:
ion) o(Approximate location)
80°
79°
Port Colborne
Buffalo



North

Printed at reduced scale. ~~SCALE 1:80,000~~ See Note on page 5.

Nautical Miles

1 0 1 2 3 4 5 6 7

Yards

1000 0 2000 4000 6000 8000 10000

(NAD 83) and is considered equivalent to World Geodetic System 1984 (WGS 84) for practical plotting purposes. Positions referred to the North American 1927 Datum do not require conversion to NAD 83 for plotting on this chart.

Joins page 7

(World Geodetic System 1984)

SOUNDINGS IN FEET

Additional information can be obtained at nauticalcharts.noaa.gov.

NOTES

PLANE OF REFERENCE OF THIS CHART (Low Water Datum)
LAKE ERIE.....569.2 ft.
LAKE ONTARIO.....243.3 ft.

Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985).

SAILING DIRECTIONS. Bearings of sailing courses are true and distances given thereon are in statute miles between points of departure.

AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation. See Canadian List of Lights, Buoys, and Fog Signals for information not included in the U.S. Coast Guard Light List.

SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see Chart No. 1.

BRIDGE AND OVERHEAD CABLE CLEARANCES. When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.

AUTHORITIES. Hydrography and Topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard, and Canadian authorities.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notices to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Buffalo, N.Y.

Refer to charted regulation section numbers.

Sailing courses and limits indicated in magenta are recommended by the Lake Carriers Association and the Canadian Shipowners Association

CAUTION

POTABLE WATER INTAKE

Vessels operating in fresh water lakes or rivers shall not discharge sewage, or ballast, or bilge water within such areas adjacent to domestic water intakes as are designated by the Commissioner of Food and Drugs (21 CFR 1250.93). Consult U.S. Coast Pilot 6 for important supplemental information.

Ⓟ Pump-out facilities

For the St. Lawrence Seaway Regulations and Circulars, special equipment, radio frequencies used in Traffic Control and related information, refer to THE SEAWAY HANDBOOK.

SOURCE

B2	1970-1989	NOS Surveys	partial bottom coverage
g		Canadian Surveys	partial bottom coverage
j	Pre-1974	Lake Survey Surveys	partial bottom coverage

SOURCE DIAGRAM

Most of the hydrography identified by the letter "j" was surveyed by the U.S. Army Corps of Engineers prior to 1974. Other outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

For more detail see Chart No. 14832

Joins page 15

Joins page 8

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot 6 for details.

RACING BUOYS

Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

CAUTION

Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

CAUTION

Mariners are warned that numerous uncharted stakes and fishing structures, some submerged, may exist in the area of this chart. Such structures are not charted unless known to be permanent.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 6 for important supplemental information.

LORAN-C

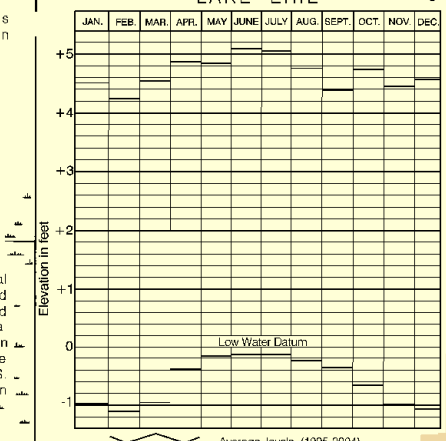
GENERAL EXPLANATION

LORAN-C FREQUENCY.....100kHz
PULSE REPETITION INTERVAL
9960.....99,600 Microseconds
STATION TYPE DESIGNATORS: (Not individual station letter designators).
M ..... Master
W ..... Secondary
X ..... Secondary
Y ..... Secondary
Z ..... Secondary

EXAMPLE: 9960-Y

RATES ON THIS CHART

Loran-C correction tables published by the National Geospatial-Intelligence Agency or others should not be used with this chart. The lines of position shown have been adjusted based on theoretically determined overland signal propagation delays. They have not been verified by comparison with survey data. Every effort has been made to meet the ¼ nautical mile accuracy criteria established by the U.S. Coast Guard. Mariners are cautioned not to rely solely on the latt ces in inshore waters.



Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the charted depths. If the lake level is above or below Low Water Datum, the existing depths are correspondingly greater or lesser than the charted depths.

Gas pipelines and wells co installations would create an should do so with caution a positions of all oil and gas we

For more detail on the Welland Canal see Canadian Chart No. 2042

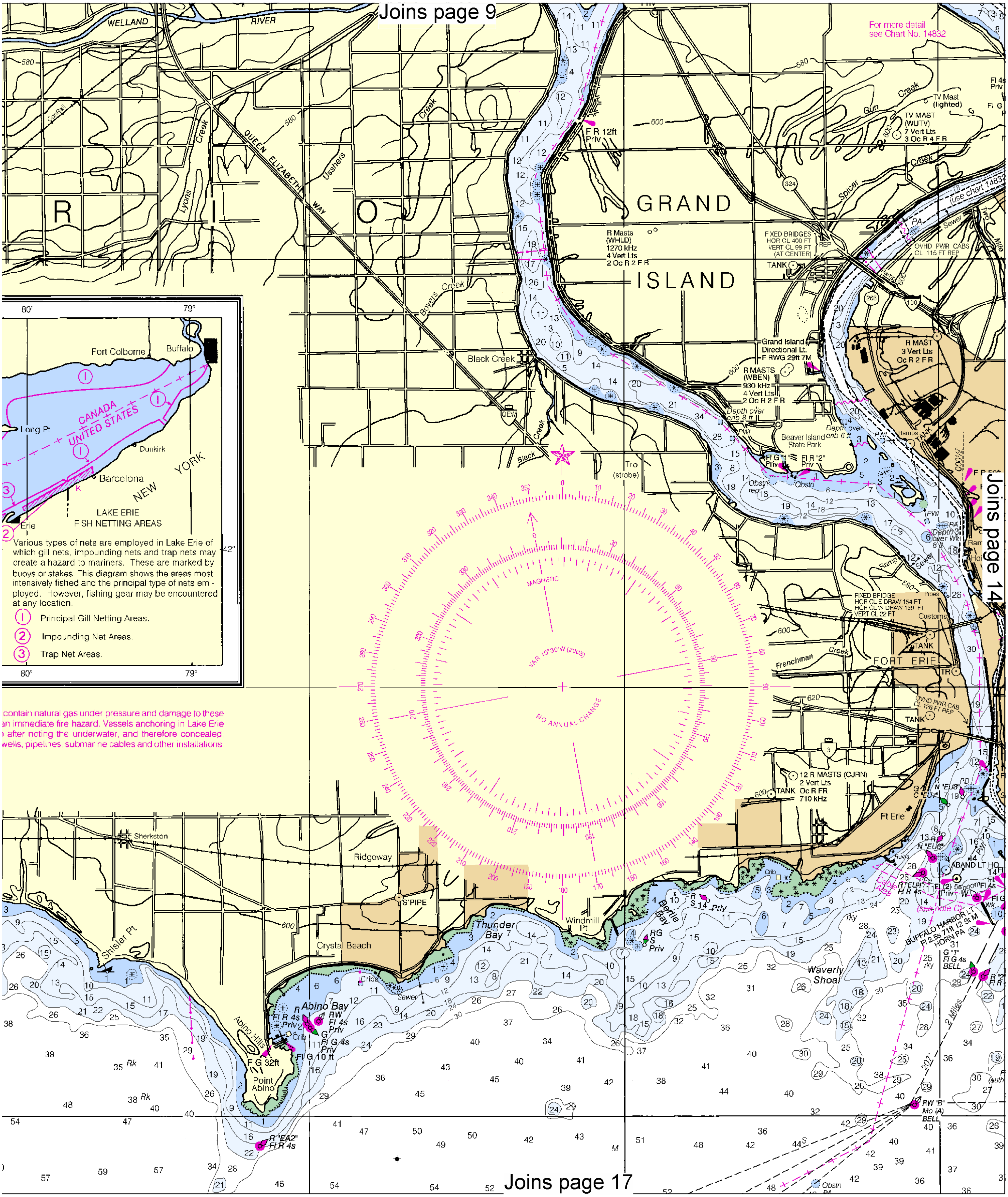
Joins page 16

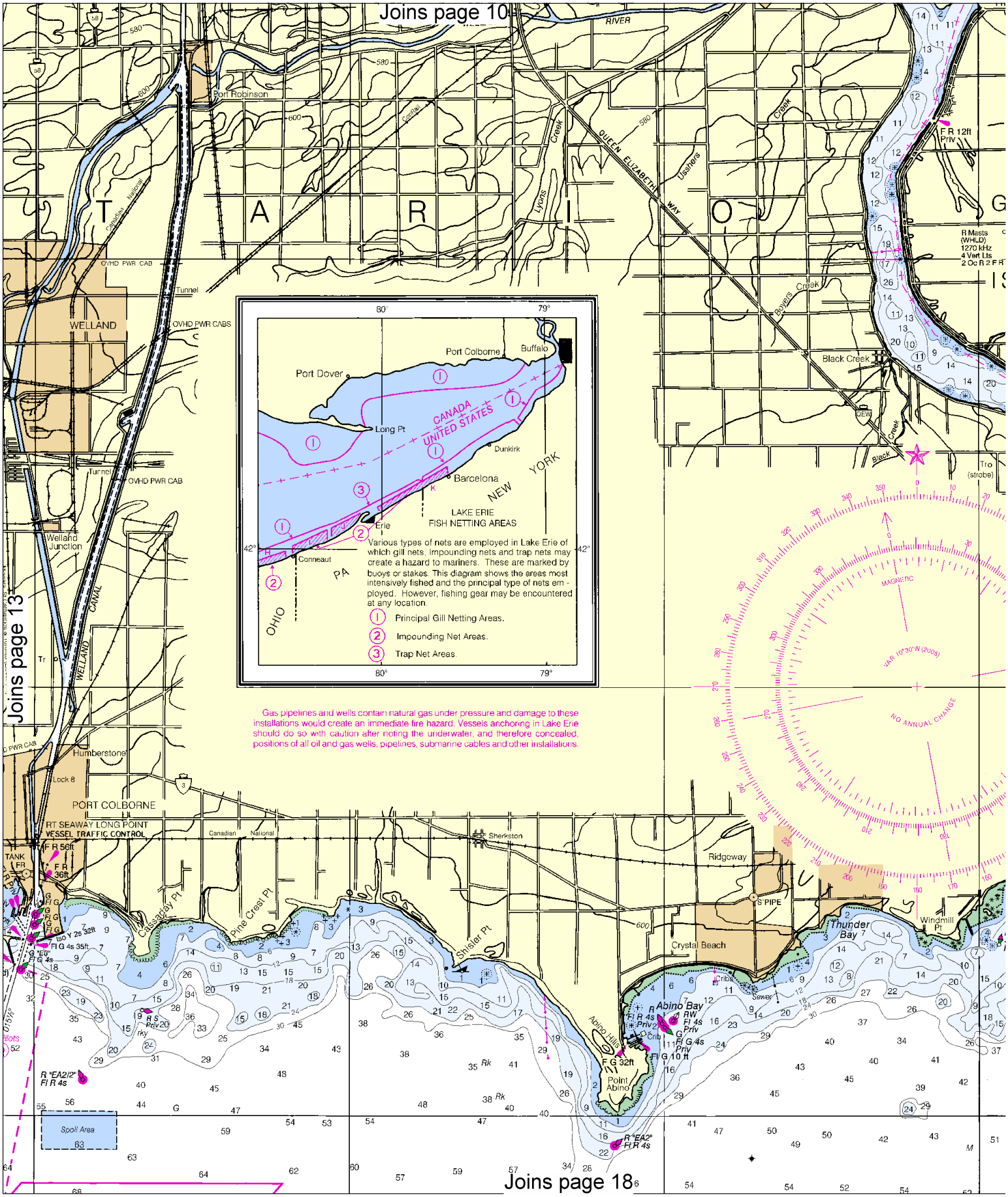
North

Printed at reduced scale. ~~SCALE 1:80,000~~ See Note on page 5.

Nautical Miles
1 0 1 2 3 4 5 6 7

Yards
1000 0 2000 4000 6000 8000 10000


Joins page 9
Joins page 14
Joins page 17
For more detail see Chart No. 14832
GRAND
ISLAND
FORT ERIE
WELLAND RIVER
QUEEN ELIZABETH WAY
Black Creek
Ridgeway
Crystal Beach
Thunder Bay
Abino Bay
Point Abino
Shisler Pt
Windmill Pt
Bertie Bay
Waverly Shoal
Sherkston
Ft Erie
Beaver Island State Park
FIXED BRIDGE HOR CL E DRAW 154 FT HOR CL W DRAW 156 FT VERT CL 22 FT
FIXED BRIDGES HOR CL 400 FT VERT CL 99 FT (AT CENTER)
OVHD PWR CABS CL 115 FT REP
OVHD PWR CAB CL 126 FT REP
Grand Island Directional Lt. F RWG 29ft 7M
R Masts (WHLD) 1270 kHz 4 Vert Lts 2 Oc R 2 F R
R MASTS (WBEN) 930 kHz 4 Vert Lts 2 Oc R 2 F R
TV MAST (WUTV) 7 Vert Lts 3 Oc R 4 F R
12 R MASTS (CJRN) 2 Vert Lts Oc R FR 710 kHz
R MAST 3 Vert Lts Oc R 2 F R
BUFFALO HARBOR LT Fl 2.5s 71ft 12 St M HORN PA
VAR 10°30'W (2005)
NO ANNUAL CHANGE
MAGNETIC
Port Colborne
Buffalo
Long Pt
Dunkirk
Barcelona
Erie
CANADA
UNITED STATES
NEW YORK
LAKE ERIE FISH NETTING AREAS
Various types of nets are employed in Lake Erie of which gill nets, impounding nets and trap nets may create a hazard to mariners. These are marked by buoys or stakes. This diagram shows the areas most intensively fished and the principal type of nets em - ployed. However, fishing gear may be encountered at any location.
(1) Principal Gill Netting Areas.
(2) Impounding Net Areas.
(3) Trap Net Areas.
contain natural gas under pressure and damage to these
an immediate fire hazard. Vessels anchoring in Lake Erie
after noting the underwater, and therefore concealed,
wells, pipelines, submarine cables and other installations.

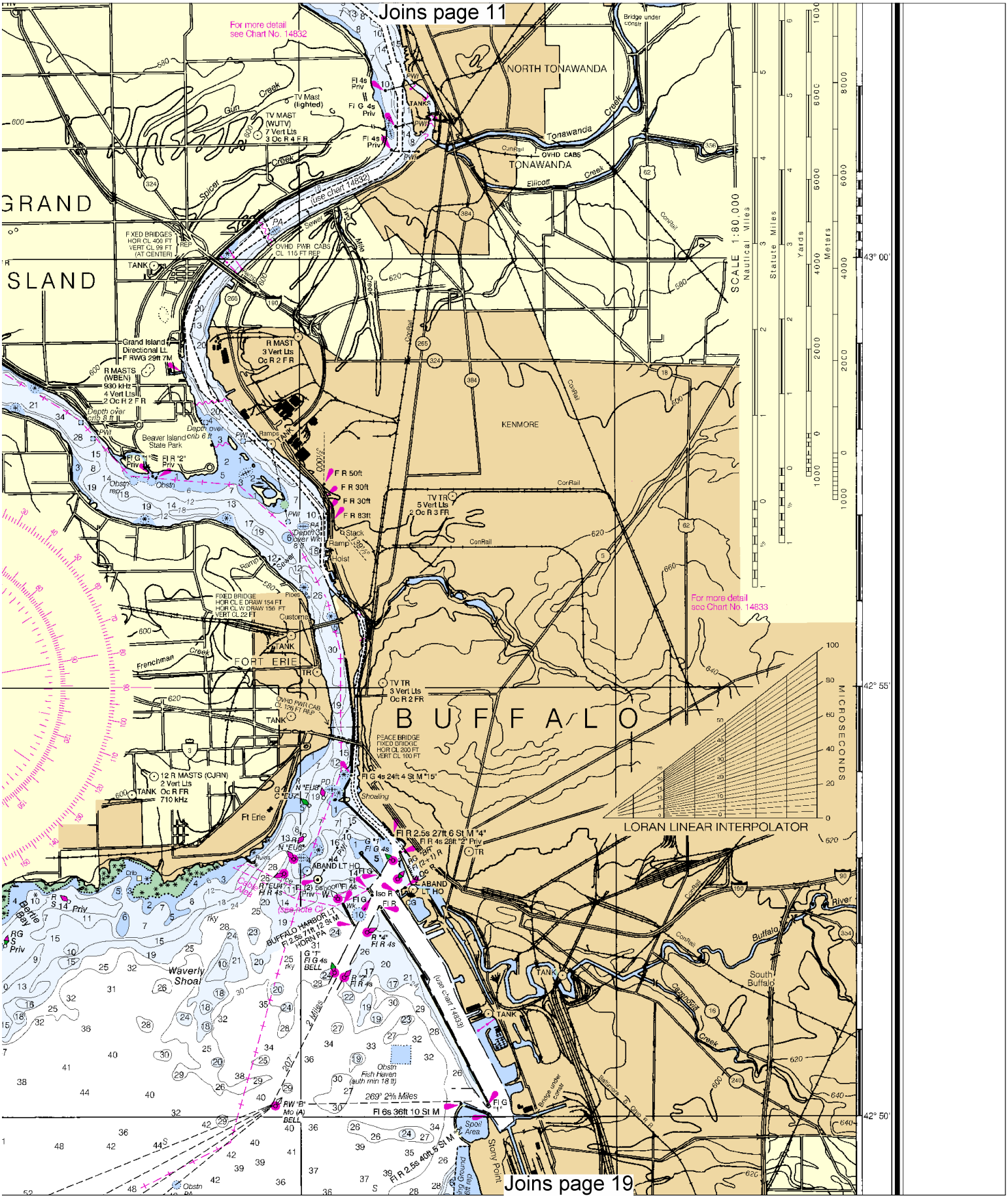


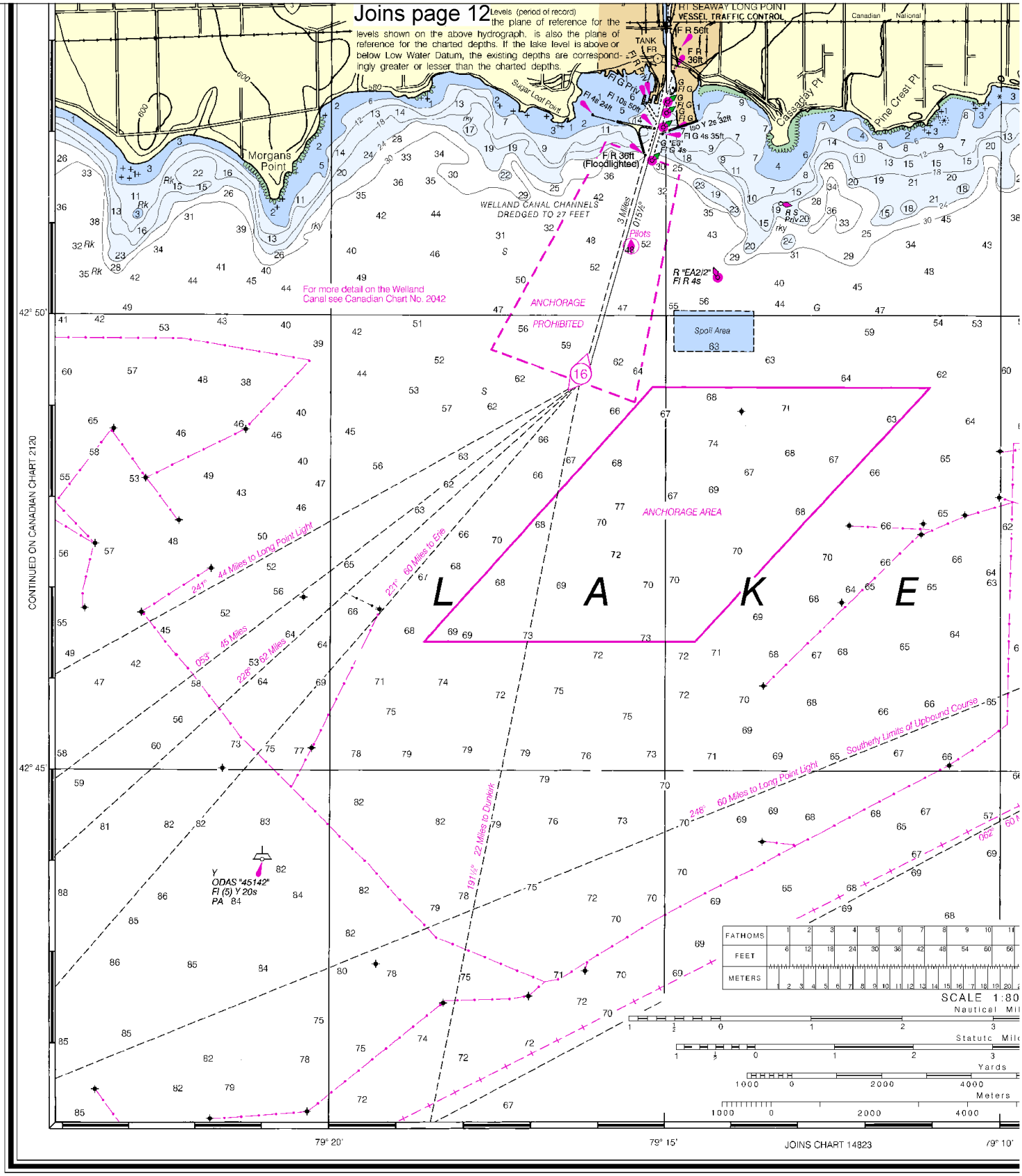
North

Printed at reduced scale. ~~SCALE 1:80,000~~ See Note on page 5.

Nautical Miles
1 0 1 2 3 4 5 6 7

Yards
1000 0 2000 4000 6000 8000 10000


Joins page 11
For more detail see Chart No. 14832
NORTH TONAWANDA
TONAWANDA
KENMORE
BUFFALO
FORT ERIE
GRAND ISLAND
Gun Creek
Tonawanda Creek
Spicer Creek
Ellicott Creek
Frenchman Creek
Bridge under constr
TV Mast (lighted)
TV MAST (WUTV) 7 Vert Lts 3 Oc R 4 F R
OVHD CABS
OVHD PWR CABS CL 115 FT REP
FIXED BRIDGES HOR CL 400 FT VERT CL 99 FT (AT CENTER)
Grand Island Directional Lt. F RWG 29ft 7M
R MAST 3 Vert Lts Oc R 2 F R
R MASTS (WBEN) 930 kHz 4 Vert Lts 2 Oc H 2 F R
Beaver Island State Park
F R 50ft
F R 30ft
F R 30ft
F R 83ft
TV TR 5 Vert Lts 2 Oc R 3 FR
TV TR 3 Vert Lts Oc R 2 FR
FIXED BRIDGE HOR CL E DRAW 154 FT HOR CL W DRAW 156 FT VERT CL 22 FT
PEACE BRIDGE FIXED BRIDGE HOR CL 300 FT VERT CL 100 FT
Fl G 4s 24ft 4 St M "15"
12 R MASTS (CJRN) 2 Vert Lts Oc R FR 710 kHz
Ft Erie
Fl R 2.5s 27ft 6 St M "4"
Fl R 4s 26ft "2" Priv
ABAND LT HO
Waverly Shoal
Fl G 4s BELL
Fl R 4s
Fl G 6s 36ft 10 St M
Spoil Area
Stony Point
Shoaling
Rocky
Obstn
Fish Haven (auth min 18 ft)
2 Miles
269° 2⅞ Miles
(use chart 14832)
(use chart 14833)
For more detail see Chart No. 14833
LORAN LINEAR INTERPOLATOR
MICROSECONDS
SCALE 1:80,000
Nautical Miles
Statute Miles
Yards
Meters
43° 00'
42° 55'
42° 50'
Joins page 19



32nd Ed., Aug. / 05 ■ Corrected through NM Aug. 6/05
Corrected through LNM Jul. 26/05

14822

LORAN-C OVERPRINTED

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued period cally by each U.S. Coast Guard district to the dates shown in the lower left hand corner.

SOUNDINGS IN

16

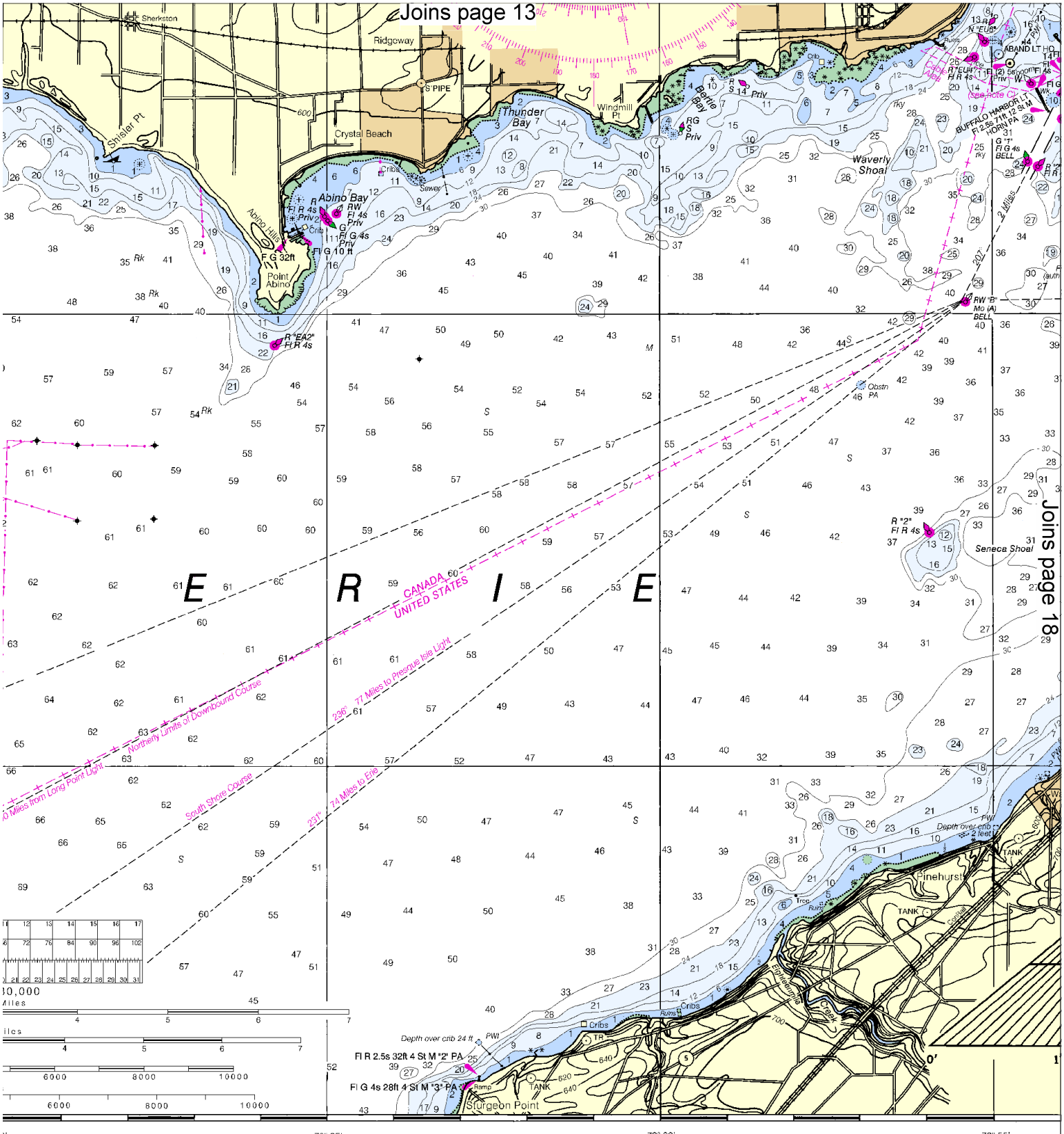
North

Printed at reduced scale. ~~SCALE 1:80,000~~

Nautical Miles 1 0 1 2 3 4 5 6 7

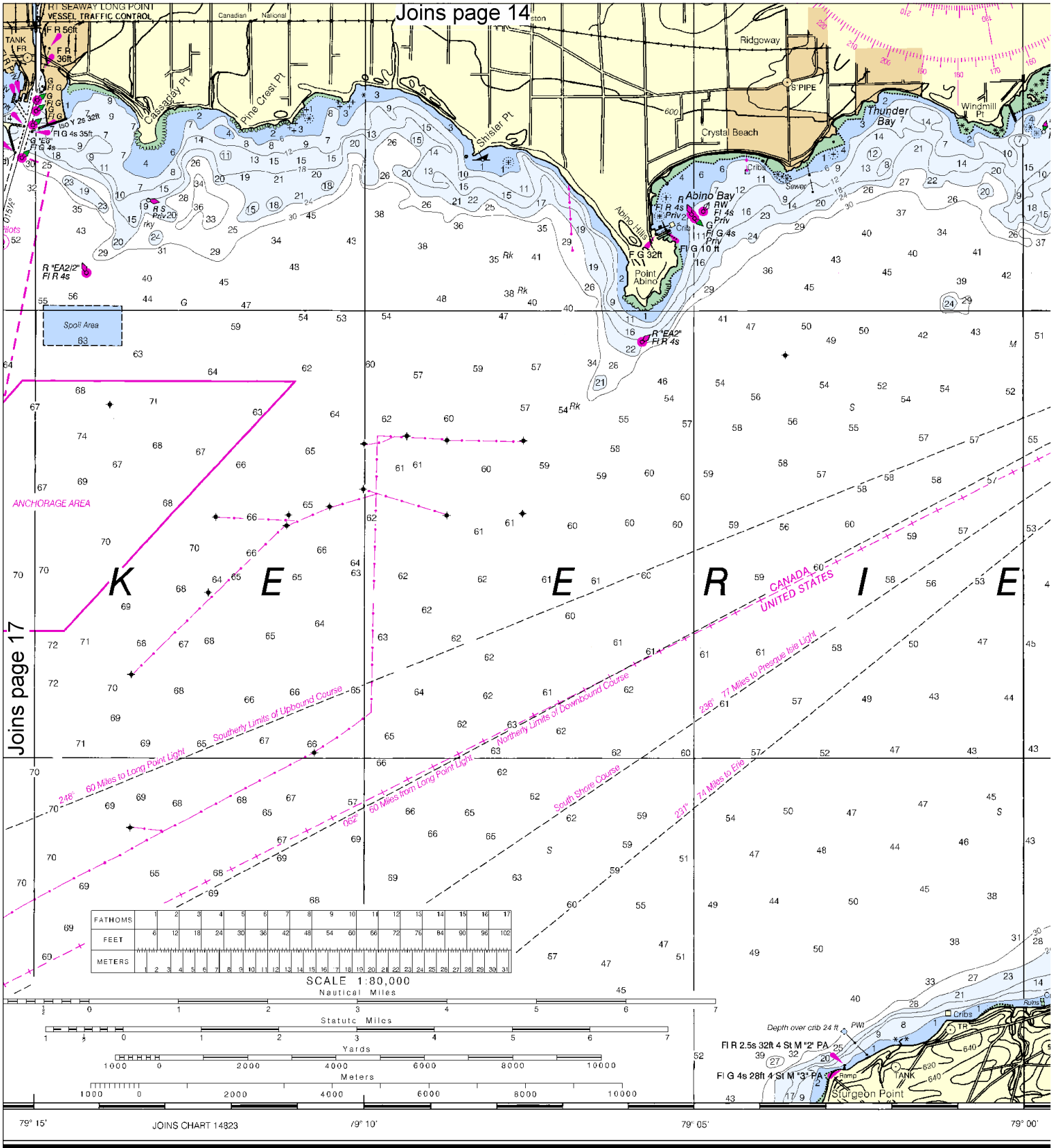
Yards 1000 0 2000 4000 6000 8000 10000

See Note on page 5.



N FEET

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY



SOUNDINGS IN FEET

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

North

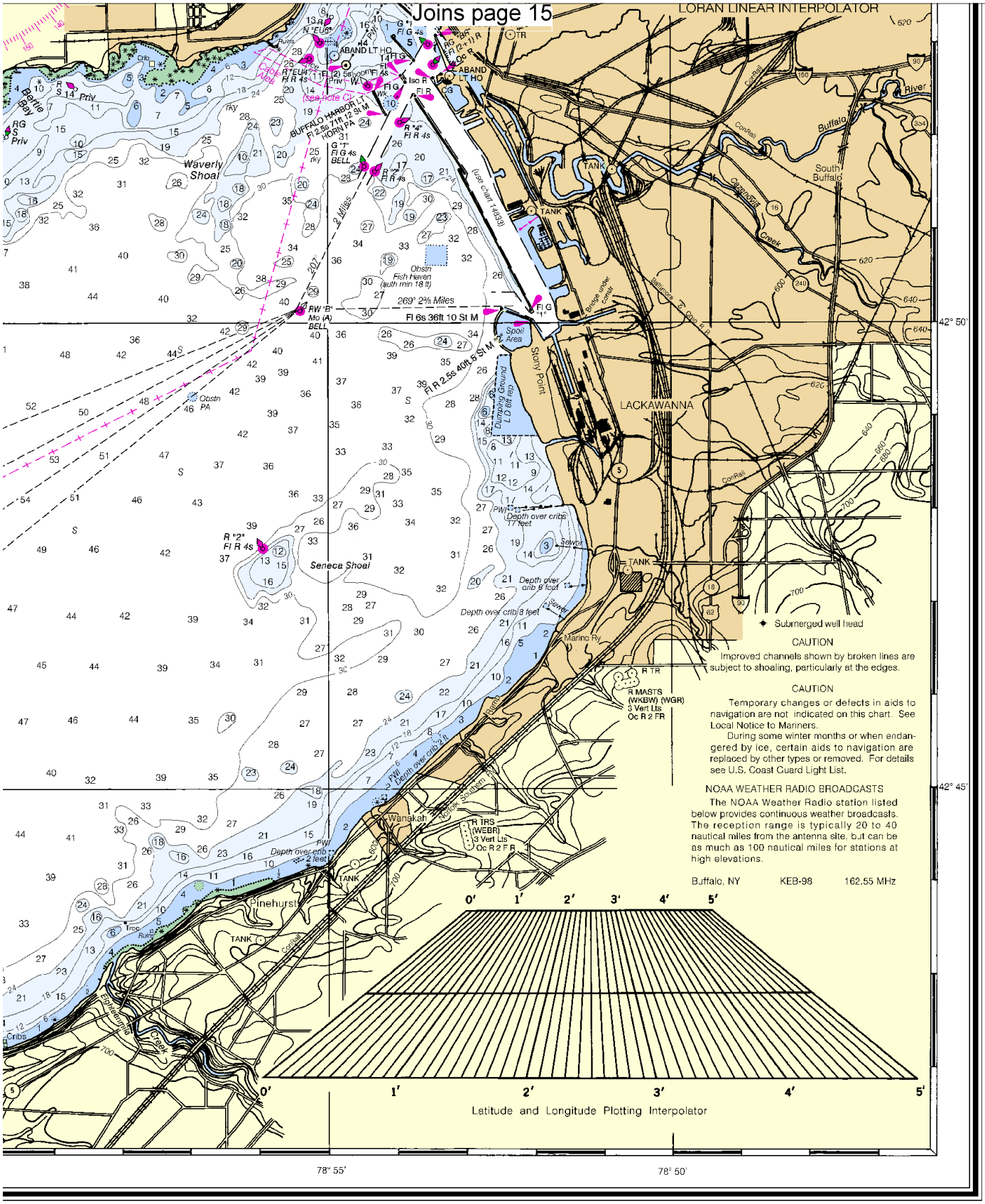
Printed at reduced scale. ~~SCALE 1:80,000~~ See Note on page 5.

Nautical Miles

1 0 1 2 3 4 5 6 7

Yards

1000 0 2000 4000 6000 8000 10000



Niagara River and Welland Canal

SOUNDINGS IN FEET - SCALE 1:80,000

14822

LORAN-C OVERPRINTED

ED.NO. 32

NSN 7642014010573

NGA REFERENCE NO. 14XCO14822

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.
Channel 9 – Communications between boats and ship-to-coast.
Channel 13 – Navigation purposes at bridges, locks, and harbors.
Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.
Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.
Channels 68, 69, 71, 72 & 78A – Recreational boat channels.

Distress Call Procedures

1. Make sure radio is on.
2. Select Channel 16.
3. Press/Hold the transmit button.
4. Clearly say: "MAYDAY, MAYDAY, MAYDAY."
5. Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
6. Release transmit button.
7. Wait for 10 seconds – If no response Repeat MAYDAY Call.

HAVE ALL PERSONS PUT ON LIFE JACKETS !!

Mobile Phones – Call 911 for water rescue.
Coast Guard Search & Rescue – 216-902-6117
Coast Guard Search & Rescue – 716-843-9527
Canadian Coast Guard (RCC Trenton) – 1-800-267-7270 or 613-965-3870

NOAA Weather Radio – 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, 162.550 MHz.

Getting and Giving Help – Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

NOAA, The Nation's Chartmaker

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Internet Sites: www.NauticalCharts.NOAA.gov, www.NOAA.gov, www.TidesandCurrents.NOAA.gov, www.NOS.NOAA.gov.